

Name: _____

Date: _____

Math Journal

Module 4

Lessons

1 - 16

Read:

Figure 1 has three points. Connect points ☐, ☐, and ☐ with as many line segments as possible.

Figure 2 has four points. Connect points ☐, ☐, ☐, and ☐ with as many line segments as possible.

Draw:

Figure 1

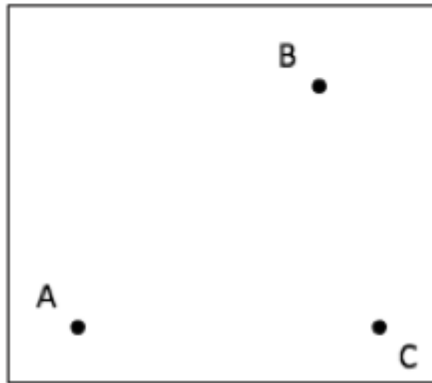
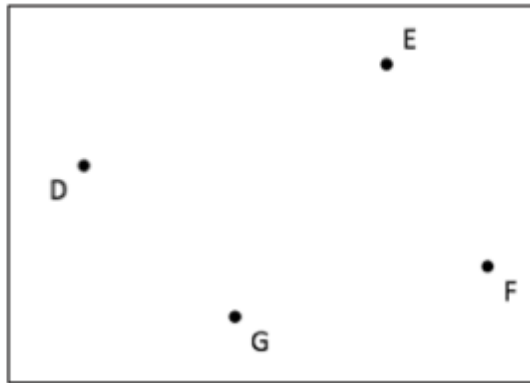


Figure 2

**Write:**

Read:

- a. Use a straightedge to draw and label AB, CD, and $\square\square$ as modeled on the board.
- b. Estimate to draw point \square halfway up AB.
- c. Estimate point \square halfway up $\square D$.
- d. Draw horizontal line segment $\square\square$. What word do the segments create?
- e. Erase segment $\square\square$. Draw segment $\square\square$. What word do the segments create?

Draw:**Write:**

Read:

Observe the letters *R*, *E*, *A*, and *L*.

How many lines are perpendicular? Describe them.

How many acute angles are there? Describe them.

How many obtuse angles are there? Describe them.

Draw:

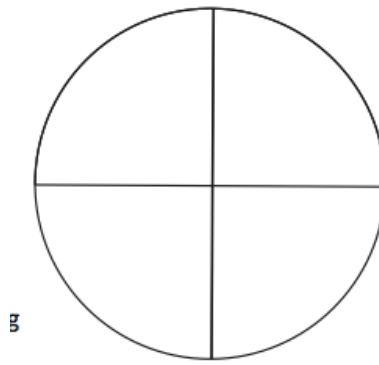
REAL

Write:

Read:

Place right angle templates on top of the circle to determine how many right angles can fit around the center point of the circle. If necessary, team up with other students to share templates. (Overlaps are not allowed.)

How many right angles can fit?

Draw:**Write:**

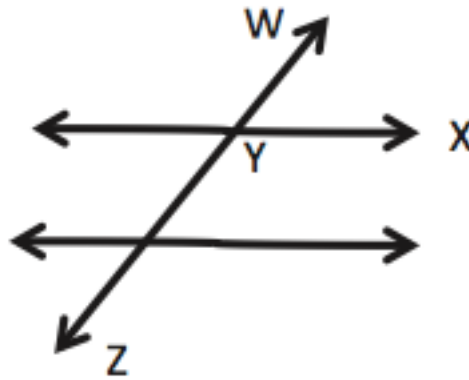
Read:

Fold Circle A and Circle B as you would to make a right angle template. Trace the folded perpendicular lines. How many right angles do you see at the center of each circle? Did the size of the circle matter?

Draw:**Write:**

Read:

Predict the measure of $\square\square\square\square$ using your right angle template. Then, find the actual measure of $\square\square\square\square$ using a circular protractor and 180° protractor. Compare with your partner when you are finished.

Draw:**Write:**

Read:

Draw a series of clocks that show 12:00, 3:00, 6:00, and 9:00. Use an arc to identify an angle and estimate the angle created by both hands on the clock.

Draw:**Write:**

Read:

List times on the clock in which the angle between the hour and minute hands is 90° . Use a student clock, watch, or real clock. Verify your work using a protractor.

Draw:**Write:**

Read:

Using pattern blocks of the same shape or different shapes, construct a straight angle.

Which shapes did you use? Compare your representation to that of your partner. Are they the same? Which pattern block can you add to your existing shape to create a 270° angle? How can you tell?

Draw:**Write:**

Read:

Use pattern blocks of various types to create a design in which you can see a decomposition of 360° . Which shapes did you use? Compare your representation to that of your partner. Are they the same? Write an equation to show how you composed 360° . Refer to the pattern block chart to help with the angle measures of the pattern blocks, as needed.

Draw:**Write:**

Read:

Cut along the dotted line, and unfold the figure. Notice how each side of the folded line matches. Fold another way, and see if the sides match. Discuss the attributes of the figure and your observations with your partner.

Draw:**Write:**

Read:

Fold Triangles A, B, and C to show their lines of symmetry. Use a straightedge to trace each fold. Discuss with your partner the relationships of symmetric shapes to angles and side lengths.

Draw:**Write:**

Read:

Draw three points on your grid paper so that, when connected, they form a triangle. Use your straightedge to connect the three points to form a triangle. Switch papers with your partner. Determine how the triangle your partner constructed can be classified: right, acute, obtuse, equilateral, isosceles, or scalene.

How can you classify your partner's triangle?

What attributes did you look at to classify the triangle?

What tools did you use to help draw your triangle and classify your partner's triangle?

Draw:**Write:**

Read:

- a. On grid paper, draw two perpendicular line segments, each measuring 4 units, which extend from a point P . Identify the segments as \overline{PA} and \overline{PB} . Draw \overline{AB} . What shape did you construct? Classify it.
- b. Imagine \overline{AB} is a line of symmetry. Construct the other half of the figure. What figure did you construct? How can you tell?

Draw:**Write:**

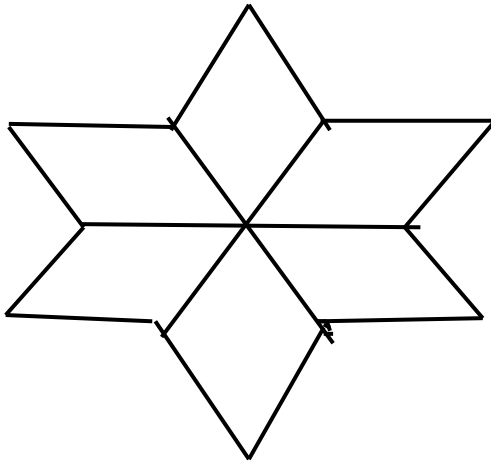
Read:

Within the stars, find at least two different examples for each of the following. Explain which attributes you used to identify each.

Equilateral triangles Trapezoids

Parallelograms

Rhombuses

Draw:**Write:**
